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## HURRICANE HARVEY MANAGEMENT REPORT

*Information contained in this report reflects HQ and regional reporting from the most recently completed operational period as well as other reports provided by HQ, regional and interagency sources. The Senior Leadership Briefing and DHS Component Actions Reports are attached.*

### National Incident Management Objectives

- Objective 1: Ensure that health and safety of the EPA response is considered at all times.
- Objective 2: Establish an incident management structure and processes employing the Incident Command System to enable effective overall management of the event with deployment of resources (staff and equipment) in a rapid, aggressive and well-coordinated manner.
- Objective 3: Ensure prompt Review and Processing of Fuel Waiver requests.
- Objective 4: Prepare for and provide Rapid Assessment of Industrial facilities as requested by the State or under EPA's statutory program responsibilities for CERCLA Superfund, RMP and FRP facilities. Working with our state partners, contact industrial sources within the impacted area to determine their operational status and determine what support can be provided with the monitoring of the start-up of industrial sources.
- Objective 5: Prepare for and provide Rapid Assessment & Technical Assistance Drinking Water & Wastewater facilities as requested by the State or local government. EPA will support our state partners in contacting drinking water and waste water systems.
- Objective 6: Prepare a Sustained Response Plan that outlines the resource and equipment needs for a long duration response.
- Objective 7: Activate the Agency's Crisis Communication Plan to insure effective and efficient coordination of all incident communications.
- Objective 8: Encourage a collaborative federalism approach, where national, state and local governments interact cooperatively and collectively to solve common problems.
- Objective 9: Begin Agency internal and external coordination, under the National Disaster Recovery Framework, regarding Recovery Support Functions in which EPA is likely to be involved.

## Executive Summary

- EPA Environmental Justice Director is traveling to Port Arthur and the Alabama-Coushatta tribe on September 12<sup>th</sup>.
- EPA and TCEQ is meeting with environmental advocates in Austin on September 12<sup>th</sup>.
- EPA reviewed of the Texas Water Development Board's requests for flexibility in using State Revolving Loan Funds to address damage by the hurricane and is responding to the state of Texas on September 12<sup>th</sup>.
- Discussions at the Joint Field Office are now focusing on debris management operations. EPA is providing a debris management expert to the JFO at FEMA's request.
- EPA expects to complete sampling of the 34 Superfund sites in Texas potentially impacted by the storm by September 13<sup>th</sup> and have preliminary results by September 16<sup>th</sup> that will not be validated.
- On September 12<sup>th</sup>, EPA will begin sampling of the nine Superfund sites in Louisiana that were potentially impacted by Harvey. R6 expects to complete sampling by September 15<sup>th</sup> and have preliminary analytical results by September 18<sup>th</sup>.
- EPA continues air monitoring activities around the Valero plant in southeast Houston to determine potential sources of volatile organic compounds (VOC) in the community. Teams monitored the following facilities with the Trace Atmospheric Gas Analyzer (TAGA): Huntsman, Eco Services Operations, Goodyear, Flint Hills Resources-Houston Chemical Plant, TPC Group-Houston Plant. In addition to TAGA monitoring, the team did additional total VOC monitoring along the Eco Services Operations fence line and the adjacent community. No significant readings of VOCs were observed.
- Airborne Spectral Photometric Environmental Collection Technology (ASPECT) has completed flight operations for the Hurricane Harvey response and will demobilize and be available to support the response for Hurricane Irma.
- EPA has confirmed that private well testing is available to residents. 21 of the 39 disaster declaration counties offer an active program to provide private well testing for area residents. The remaining 18 counties have access to state programs to provide for private well testing at a nominal fee.

**Region 6 Significant Activities:**

The R6 REOC is currently activated and working under a limited Emergency Support Function (ESF) 10 FEMA Mission Assignment (MA). EPA has received MA's for over \$10.3 million for recovery operations to include assisting TX with drinking water, wastewater, and hazmat recovery operations. FEMA announced plans to fund mission assignments in five day increments.

<b>Mission Assignment Number</b>	<b>Funding Amount</b>	<b>Description of Assignment</b>
MA4332DRTX3	\$10,092,000	R6 Field Ops incl. assessing drinking & waste water infrastructure, implementation of Response Manager tracking system, response to hazardous substance releases and oil discharges.
MA4332DRTX1	\$275,000	Deployment of EPA to various locations, including but not limited to TX EOC and the FEMA RRCC to support response operations.
<b>Total Funds</b>	<b>\$10,367,000</b>	

**Number of R6 Personnel Involved:**

<b>Personnel</b>	<b>EPA R6 Dallas</b>	<b>FEMA Denton</b>	<b>Texas JFO Austin</b>	<b>TX SOC Austin</b>	<b>TCEQ Austin</b>	<b>Houston</b>	<b>Corpus Christi</b>	<b>Beaumont/ Port Arthur</b>	<b>Totals</b>
<b>R6</b>	54	0	2	2	0	74	12	8	152
<b>START</b>	7	0	0	1	1	12	11	6	38
<b>ERRS</b>	0	0	0	0	0	19	6	5	30
<b>Other Contractor</b>	1	0	0	0	0	0	0	0	1
<b>TOTAL</b>	62	0	2	3	1	105	29	19	221

#### Container Recovery Operations:

This chart includes daily and cumulative data on container recovery.

Date	Containers				Total
	Drums (55gal)	Small Containers (<55gal)	Large Containers (>55gal)	Cylinders	
9/10/2017	10	20	0	9	39
9/11/2017	10	24	3	6	43
<b>Total to Date</b>	<b>94</b>	<b>80</b>	<b>11</b>	<b>33</b>	<b>218</b>

#### Houston, TX:

A Hazard Evaluation Team responded to a report of a chlorine release in the vicinity of Chocolate Bayou. No evidence of a chlorine release was found by the team.

Discharge Assessment Teams assessed or recovered 25 targets within Galena Park, the Woodlands, and Chambers County. Boat teams reassessed areas off San Bernard and Bastrop to verify there were no additional targets in those areas. Emergency Response/Orphan Container Recovery Teams recovered 40 containers from Colorado, Austin, Waller, Fort Bend, Harris, Wharton, and Montgomery Counties.

ASPECT surveyed the remaining Risk Management Program sites in the greater Houston area. Data will be processed and posted on September 12<sup>th</sup>. ASPECT has completed flight operations for the Harvey Response.

#### Beaumont, TX:

The Inland Task Force Hazard Evaluation Group, Orphan Container Recovery Group, and Oil Discharge Task Force conducted assessments in Lumberton, Sour Lake, Port Arthur, Sabine Pass, Beaumont, Bridge City, Beaumont Yacht Club, and Rose City. Hazard Evaluation Teams conducted patrols of Orange County, the marine fueling pier and Rainbow Marina. Sixteen targets were assessed and no active discharges or significant environmental threats were observed.

The Discharge Assessment Team investigated four targets. Two of the targets will be recovered and cleaned up. One target was inaccessible due to its location inside a refinery and one was recovered, cleaned up, and subsequently closed.

The Orphan Container Recovery Team investigated and recovered 14 targets. During an investigation of a 4,000-gallon diesel tank, a small leak was found. Another team will recover the tank on September 12<sup>th</sup>. The staging area is complete and receiving orphan containers today.

## Emergency Response:

Daily/Cumulative Summary of Hazard Evaluations/Recovery				
Status	Opened		Closed	
	9/11/2017	Number of Targets Remaining Open	9/11/2017	Cumulative
Corpus Christi Branch	1	11	1	91
Houston Branch	24	224	4	104
Port Arthur/Beaumont Branch	5	63	2	9
NRC Reports	0	2	0	1
<b>Totals</b>	<b>30</b>	<b>300</b>	<b>7</b>	<b>205</b>
Note: Open means the target is yet to be recovered. Closed means the target was recovered/left in place or access was denied to collect the item.				

Daily/Cumulative Summary of Spills/Discharges (Non-Vessels)				
Status	Opened		Closed	
	9/10/17**	Number of Facilities/Spills Remaining Open	9/10/17**	Cumulative
Corpus Christi Branch	1	8	0	35
Houston Branch	3	47	1	41
Port Arthur/Beaumont Branch	1	17	1	10
NRC Reports	18	147	7	55
<b>Totals</b>	<b>23</b>	<b>219</b>	<b>9</b>	<b>141</b>
Note: Open means the target is yet to be recovered/cleaned up. Closed means the target was recovered/cleaned up by a Responsible Party or not found upon return to location. * The number of targets remaining opened has changed as QA/QC efforts have taken place and due to corrections made to the coding. Previous amounts were the total number of targets opened overall, not just those remaining open.				

\*\* No updated numbers available for 9/11/2017

## Field Response Activities

Field Teams on 9/11/2017				
Teams	Alpha	Bravo	Charlie	Total
Hazard Evaluation	1	2	2	5
Oil Discharge Assessment	2	7	1	10
ER/Orphan Container Recovery	1	6	1	8
Oil/Vessel Recovery	5	0	0	5
Staging Areas	1	1	1	3
Air Operations	0	1	1	2
Air Monitoring	0	3	0	3
Water Infrastructure Assessment – Drinking Water	0	11	0	11
Water Infrastructure Assessment – Wastewater	0	5	0	5
<b>Totals</b>	<b>10</b>	<b>36</b>	<b>6</b>	<b>52</b>

Daily/Cumulative Summary of Vessels				
Status	Opened		Closed	
	9/11/2017	Number of Vessels Remaining Open	9/11/2017	Cumulative
Corpus Christi Branch	24	239	2	151
Houston Branch	2	45	1	11
Port Arthur/Beaumont Branch	7	42	0	5
NRC Reports	3	6	0	6
<b>Totals</b>	<b>36</b>	<b>332</b>	<b>3</b>	<b>186</b>

**EPA Headquarters Significant Activities:**

The HQ EOC is activated to Level 1 in support of the Region 6 response to Harvey. The HQ EOC is coordinating with Region 6 and other Federal agencies. The HQ EOC has deployed personnel to the FEMA NRCC to staff the ESF #10 desk. EPA Senior Management that comprise the Policy Coordinating Committee (PCC) developed and issued senior management objectives that form the basis of field strategy and tactics in response to Harvey.

Headquarters Mission Assignments:

<b>Mission Assignment Number</b>	<b>Funding Amount</b>	<b>Description of Assignment</b>
MA4332DRTX1	\$10,000	FEMA HQ ESF-10 Desk Support
4332DRTXEPA02	\$40,000	FEMA HQ ESF-10 Desk Support
<b>Total Funds</b>	<b>\$50, 000</b>	

Number of HQ Personnel Involved in the EOC:

<b>Personnel</b>	<b>AO</b>	<b>OAR</b>	<b>OCFO</b>	<b>OCSPP</b>	<b>OECA</b>	<b>OEI</b>	<b>OGC</b>	<b>OLEM</b>	<b>OP</b>	<b>ORD</b>	<b>OW</b>	<b>ATSDR</b>	<b>Totals</b>
<b>Employees</b>	1	0	0	0	3	1	1	15	1	2	1	1	26
<b>Contractors</b>	0	0	0	0	0	4	0	3	0	0	0	0	7
<b>TOTAL</b>	1	0	0	0	3	5	1	18	1	2	1	1	33

#### National Incident Management Team (N-IMAT):

N-IMAT personnel fully demobilized from Corpus Christi on September 11<sup>th</sup>.

#### Superfund NPL Sites:

EPA directed potentially responsible parties, and independently started collecting samples, at 34 Texas Superfund Sites and nine Louisiana Sites to confirm no releases due to storm impacts. EPA teams, along with potentially responsible parties, completed sampling at 26 sites. R6 expects sampling in Texas to be complete by September 13<sup>th</sup> and sampling in Louisiana to be complete by September 15<sup>th</sup>. R6 also expects to have preliminary results for sites located in Texas by September 16<sup>th</sup> and for the sites located in Louisiana preliminary results by September 18<sup>th</sup>.

All 43 Federal Superfund NPL Sites in the affected area have been assessed. Of these, 41 sites have been cleared, and two sites (San Jacinto Pits and US Oil Recovery) require additional follow-up.

- San Jacinto Waste Pits: Cap repairs continue on the remaining berm sections and samples were collected and sent for analyses. The Dive team assessed the armor cap and identified missing components. R6 will develop a sampling plan based on this assessment.
- US Oil: The potentially responsible party continues to pump down Lift Station #1 to maintain freeboard and coordinate repair/replacement of the damaged/displaced plugs in the piping in the lift station and sand filter. The freeboard level in the lift station is close to being stabilized.

#### EPA Laboratory/Analytical Services:

EPA's TAGA vehicle was repaired on September 9<sup>th</sup> and is back online.

#### Air Monitoring

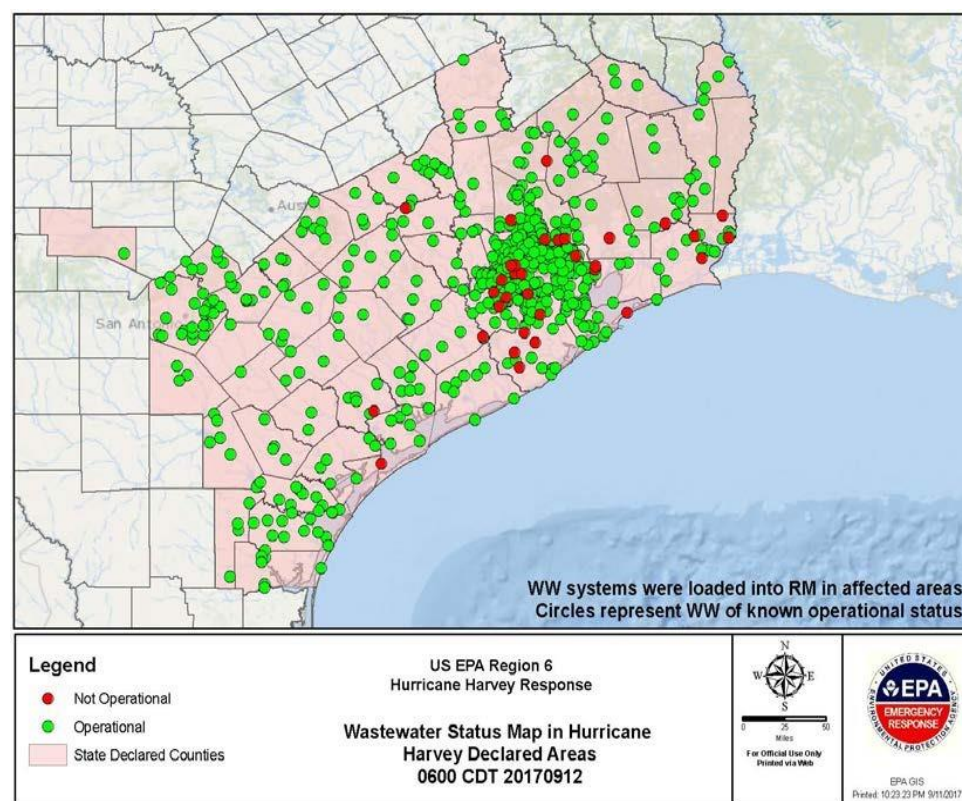
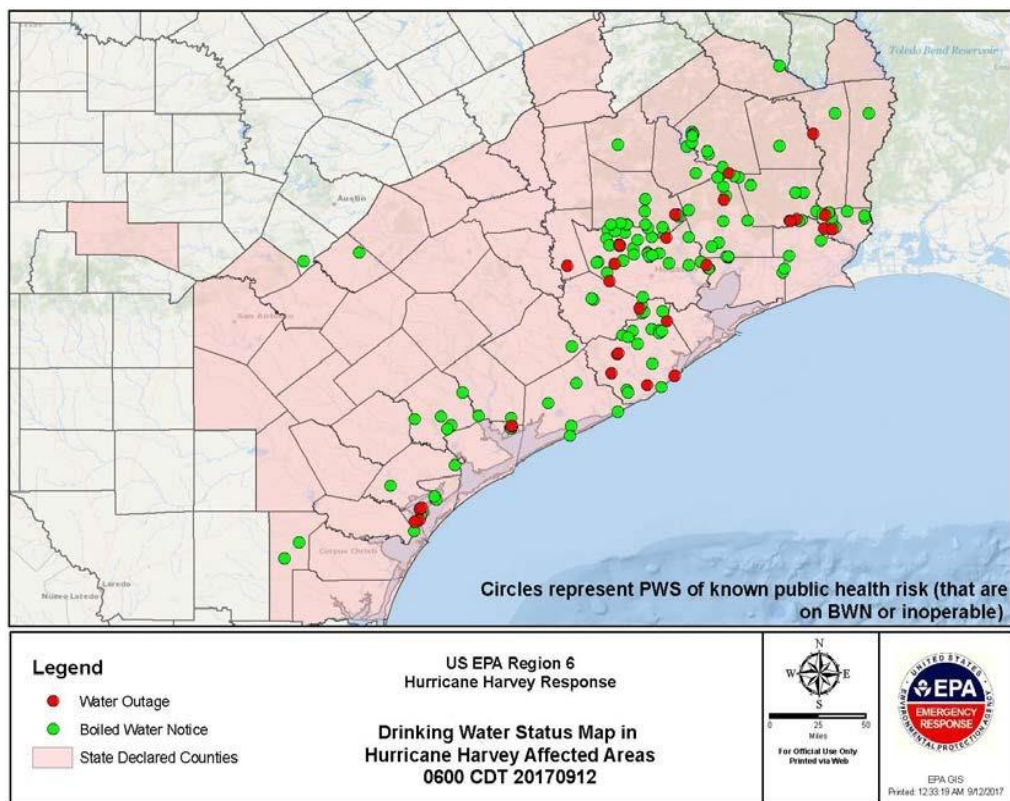
The TAGA mobile laboratory monitored along the perimeter of the neighborhood adjacent to the Valero Houston Refinery, as well as facilities in the local area and the Manchester neighborhood. The TAGA is expected to finish monitoring in the vicinity of the remaining industry in the Houston area.



### Drinking Water/Wastewater Assessments:

EPA continues to support to TCEQ for drinking water and wastewater system assessments.

Drinking Water and Waste Water Assessments (as September 11 <sup>th</sup> )		
Assessment Types	Daily Assessments	Total Assessments
On-Site DW Assessments	43	467
On-Site WW Assessments	26	297
Phone DW Assessments	20	5211
Phone WW Assessments	0	3150





## Other EPA Activities

### Fuel Waivers:

Affected State	Waiver Request	Date Received	Status Talking Point	Waiver Response
<b>Reid Vapor Pressure Requirements Waivers</b>				
TX	Letter from TCEQ requesting a waiver of the RVP, RFG and TxLED standards in the Governor's Disaster Proclamation	8/25/17	Granted on 8/25/17	<a href="https://www.epa.gov/enforcement/eastern-and-coastal-texas-fuels-waiver">https://www.epa.gov/enforcement/eastern-and-coastal-texas-fuels-waiver</a>
GA	Amended letter from GA Department of Natural Resources for Atlanta RVP to waive 7.8 RVP requirement to 11.5 RVP	8/29/17	Granted on 8/29/17	<a href="https://www.epa.gov/enforcement/louisiana-fuels-waiver">https://www.epa.gov/enforcement/louisiana-fuels-waiver</a>
LA	Letter from LA governor requesting a waiver of the low RVP requirements.	8/28/17	Granted on 8/28/17	<a href="https://www.epa.gov/sites/production/files/2017-08/documents/louisianafuelswaiver082817.pdf">https://www.epa.gov/sites/production/files/2017-08/documents/louisianafuelswaiver082817.pdf</a>
AR	The state is drafting a waiver request to temporarily waive the requirement for low 9.0lb RVP fuel.	8/31/17	N/A	N/A
OK	A statewide low RVP fuel waiver request was submitted and then the request was amended.	8/28/17	8/30/17	<a href="https://www.epa.gov/enforcement/second-multi-state-fuels-waivers">https://www.epa.gov/enforcement/second-multi-state-fuels-waivers</a>
<b>Dyed NRLM Diesel Fuel Waiver</b>				
TX	Letter from TX comptroller requesting a waiver of using dyed NRLM diesel fuel in motor vehicles.	8/29/17	Granted on 8/29/17; IRS expanded to cover all of TX on 9/3/17	<a href="https://www.epa.gov/enforcement/texas-diesel-waiver">https://www.epa.gov/enforcement/texas-diesel-waiver</a>

Affected State	Waiver Request	Date Received	Status Talking Point	Waiver Response
Florida	Florida Department of Environmental Protection requests use of 15 parts per million sulfur non-road diesel to be used as highway diesel fuel, waiving red dye requirements	9/6/17	Granted 9/6/17 through 9/22/17	URL pending
<b>Low Volatility Conventional Gasoline and Reformulated Gasoline (RFG)</b>				
CT, ME, MA, NH, RH, VT, DE, DC, MD, NJ, NY, and PA, FL, GA, NC, SC, VA, and WV; all mid-western states located in *PADD 2 - IL, IN, IA, KS, KY, MI, MN, MO, NE, ND, SD, OH, OK, TN, and WI; and all Gulf coast states located in PADD 3 –AL, AR, LA, MS, NM, and TX	Issuance of waivers based on requests for the allowance of regulated parties within the listed states to produce, sell, or distribute conventional winter gasoline (including BOBs) with an RVP of 11.5 psi before the addition of any ethanol in any RFG covered area. The waiver for El Paso goes until September 16 <sup>th</sup> due to their State Implementation Plan requirements.	8/30/17	Granted on 8/31/17  Extended to 9/26/17.	<a href="https://www.epa.gov/enforcement/second-multi-state-fuels-waivers">https://www.epa.gov/enforcement/second-multi-state-fuels-waivers</a>

**\*PADD: Petroleum Administration for Defense Districts**

#### Communications:

The Crisis Communication Plan remains activated. EOC PIO continues to work on posting fact sheets on a variety of response topics, portraying EPA's role in the disaster and how each office provides support. The EPA Liaison to the City of Houston Mayor's Office demobilized on September 11<sup>th</sup>. R6 PIO and Data Management created a *Region 6 Hurricane Harvey - Public Story Map*. The map is located at this link:

<https://epa.maps.arcgis.com/apps/MapJournal/index.html?appid=fadbae6b2832436fb65ca497bd75b9a6>

Community Liaisons (CLs) have been deployed to impacted areas. Tasks include touching base with various response organizations in each of the 39 declared counties and providing information for use in the recovery process.